

REMARKS

Applicant is in receipt of the Office Action mailed December 23, 2003. Claims 27 – 59 were rejected. Claims 27, 41, 47, and 51 have been amended. Claims 27 – 59 remain pending in the application.

Objection to the Drawings

The Office Action noted that new corrected drawings were required because the replacement drawings previously submitted did not comply with the requirements of 37 CFR 1.121, which requires that any replacement sheet be identified in the top margin as, “Replacement Sheet”. The Office Action also noted that Applicant’s apparent changes to the drawings along with the arguments presented in the submission filed November 14, 2003 would appear to resolve all outstanding drawing objections, pending receipt of acceptable replacement drawings complying with 37 CFR 1.121. Accordingly, new corrected drawings identified in the top margin as “Replacement Sheet” are submitted herewith.

Claim Rejections

Claims 47, 49-51, and 53-59 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,298,474 to Blowers et al. (hereinafter “Blowers”). Applicant respectfully traverses this rejection.

Amended claim 47 recites in part, “programmatically changing the image processing algorithm in order to reduce the execution time of the image processing algorithm, wherein said programmatically changing the image processing algorithm is not performed directly in response to user input”. In other words, the program instructions of the memory medium are executable to change the image processing algorithm programmatically or automatically, and not directly in response to user input.

Blowers does not teach or suggest this concept. Instead, Blowers relies on user input to directly specify changes. The Office Action refers to the “Stop Results By” and “Stop Result Count” fields in the “Blob Properties” dialog box of FIG. 7 in Blowers as examples. However, Blowers states that, “Parameters are configurable on each of the tasks where the parameters control the way the function generates results, as illustrated in

FIGS. 7 and 8 with respect to the blob and alignment vision tools, respectively” (Col. 9, lines 7 - 10). Any changes made to the tasks through the dialog box of FIG. 7 are made directly as a result of the user providing user input to change various parameters. These changes are not made programmatically as recited in claim 47.

Applicant thus submits that claim 47 is allowable. Inasmuch as amended claim 51 recites elements similar to those of claim 47, Applicant submits that claim 51 is also allowable. Also, since claims 48 – 50 and 52 – 54 are dependent upon claims 47 and 51, respectively, Applicant submits that these claims are also allowable, for at least this reason.

With respect to claim 55, the claim recites in part,

“programmatically determining one or more suggested changes to the image processing algorithm in order to reduce the execution time of the image processing algorithm; and
displaying information indicating the one or more suggested changes.”

In other words, the program instructions of the memory medium are executable to programmatically or automatically determine one or more suggested changes to the image processing algorithm and display information indicating the one or more suggested changes. Blowers does not teach or suggest these features. The Office Action relies on the same portion of Blowers as discussed above to teach these features, namely the “Stop Results By” and “Stop Result Count” fields in the “Blob Properties” dialog box of FIG. 7. However, as discussed above, the dialog box of FIG. 7 merely allows the user to set various parameters according to the user’s desire. There is no teaching whatsoever in Blowers regarding the concept of programmatically determining or displaying suggested changes in order to reduce the execution time of an image processing algorithm.

Applicant thus submits that claim 55 is allowable. Since claims 56 – 58 are dependent upon claim 55, Applicant submits that these claims are also allowable, for at least this reason. Applicant also submits that claim 59 is allowable, for reasons similar to those cited above.

Claims 27 – 30, 33 – 44, and 46 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,298,474 to Blowers et al. in view of U.S. Patent No. 5,293,429 to Pizano et al. (hereinafter “Pizano”). Applicant respectfully traverses this rejection.

Pizano relates generally to a form recognition system in which digitized images of forms are compared to templates in a dictionary. The form recognition system utilizes a line recognition algorithm that identifies lines in a form (Col. 3, lines 11 – 18, Col. 4, lines 50 – 51) and a matching algorithm that systematically traverses the templates in the dictionary to determine the class to which the form belongs (Col. 4, lines 45 – 49). The speed of Pizano’s form recognition system was determined through a separate group of tests in which 100 forms were run against dictionaries of different template sizes. The results of these tests are illustrated in FIG. 11 of Pizano. FIG. 11 is a graph illustrating the average time of the line recognition algorithm and the matching algorithm versus the number of templates in the dictionary (Col. 11, lines 34 – 42).

Applicant submits that Pizano cannot be combined with Blowers to teach the combination of features recited in the computer-implemented method of amended claim 27. Applicant first notes that amended claim 27 recites in part, “displaying information on a display device indicating the average amount of time required to execute the image processing algorithm for the plurality of images”. This feature is not taught or suggested in Blowers or Pizano, taken either singly or in combination. FIG. 11 is merely a drawing that forms a part of Pizano’s patent disclosure; the data illustrated in FIG. 11 is not described in Pizano as being displayed on a display device as part of a computer-implemented method.

Amended claim 27 further recites, “wherein said displaying the information indicating the average amount of time required to execute the image processing algorithm allows a user to evaluate performance of the image processing algorithm”. For example, as described in the present application, the user can view the average amount of time required to execute the image processing algorithm and can then interactively make changes to the image processing algorithm if desired, e.g., to improve performance of the image processing algorithm.

As noted above, Pizano's system is not operable to display information on a display device indicating the average amount of time required to execute an image processing algorithm. Furthermore, there would be no reason for Pizano's system to display such information in order to allow a user to evaluate performance of an image processing algorithm. The algorithms (the line recognition algorithm and the matching algorithm) performed by Pizano's form recognition system are apparently fixed algorithms. In other words, once Pizano's form recognition system is constructed, the system apparently executes these fixed algorithms to match the input forms against the dictionary of template images. It is possible that during the development of the form recognition system it might have been desirable to implement an automated testing system that would automatically display information regarding the performance of the algorithms, e.g., so that the fixed algorithms could be altered during the development of the form recognition system. However, this is hindsight and, moreover, this concept is certainly not described in any manner in Pizano.

Applicant thus submits that claim 27 allowable. Inasmuch as amended claim 41 recites elements similar to those of amended claim 27, Applicant submits that claim 41 is also allowable. Also, since claims 28 – 40 and 42 – 46 are dependent upon claims 27 and 41, respectively, Applicant submits that these claims are also allowable, for at least this reason.

CONCLUSION


Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-45000/JCH.

Also enclosed herewith are the following items:

- ☒ Replacement Figures 4-11 and 22
- ☒ Notice of Change of Address
- ☒ Return Receipt Postcard

Respectfully submitted,



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